

UNITED STATES PATENT AND TRADEMARK OFFICE  
**CERTIFICATE OF CORRECTION**

PATENT NO. : 7,142,609 B2  
APPLICATION NO. : 09/841837  
DATED : November 28, 2006  
INVENTOR(S) : Terreault et al.

Page 1 of 2

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 14

Line 36, delete the following that begins with "Referring now to FIG. 9. according to one aspect...", and ends with "(15%) can be extracted." on column 15, line 3, and insert the following:

-- The proposed method is to use spectrum analyzer functionality to sample the signal amplitude with a resolution bandwidth of the same order of magnitude as the signal (i.e. 1 or 3 MHz) for the 6 MHz signal, but a small video bandwidth (1 kHz); to trigger the sampling sequences to the power line and apply averaging preferably over between twenty (20) and two hundred (200) averages. By zooming onto the small amplitude modulation, a peak-to-peak modulation from one tenth (0.1%) of a percent to fifteen percent (15%) can be extracted.

Referring now to FIG. 9, according to one aspect of the present invention, there is provided a method 900 for detecting and quantifying impairments of a received communication signal of a quadrature amplitude modulation data communication system represented by a plurality of ideal values, said method comprises the steps of:

a) storing 902 a statistically significant number of a plurality of received points of said signal for each of said ideal values corresponding to a plurality of groups of said plurality of ideal values, each of said received points being defined by an in-phase and a quadrature components in a coordinate system in which a first axis is an in-phase axis and a second axis is a quadrature axis, said components having corresponding ideal components from their respective of said ideal values, each of said groups corresponding to a respective of said impairments and being specific to the same;

b) analyzing 904 said components of said received points of respective of said groups in relation with their respective of said ideal components of said ideal values to quantify said impairments of said signal and provide calculated values of the same; and

c) displaying 906 said calculated values of said impairments. --

Column 15

Claim 1, line 15, delete "(OAM)" and insert therefor -- (QAM) --

Claim 1, line 34, delete "qadrature" and insert therefor -- quadrature--

Claim 1, line 36, delete "quadruture" and insert therefor -- quadrature--

Claim 1, line 40, delete "imparments" and insert therefor -- impairments--

Claim 1, line 42, delete "compression ratio. I/O" and insert therefor -- compression ratio, I/Q --

Claim 1, line 42, delete "I/O phase" and insert therefor -- I/Q phase--

Claim 3, line 61, delete "cower" and insert therefor --corner--

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Column 16

Claim 4, line 11, delete "ia-phase" and insert therefor -- in-phase--

Claim 6, line 59, delete "sub-avenge" and insert therefor -- sub-average--

Column 17

Claim 6, line 13, delete "Conning" and insert therefor -- forming--

Claim 7, line 25, delete "bath" and insert therefor -- both--

Column 18

Claim 10, line 1, delete "band" and insert therefor -- baud--

Claim 12, line 26, delete "(hum) said" and insert therefor -- (hum), said--

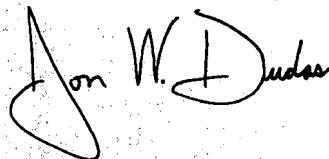
Claim 12, line 36, delete "rare" and insert therefor -- rate--

Column 20

Claim 12, line 3 and 4, delete "peak-re-peak" and insert therefor -- peak-to-peak--

Signed and Sealed this

Thirtieth Day of October, 2007

A handwritten signature in black ink, reading "Jon W. Dudas". The signature is stylized with a large, looped initial "J" and a cursive "D".

JON W. DUDAS  
*Director of the United States Patent and Trademark Office*